

CORRESPONDENCE

Cerebral symptoms from mobile telephones

EDITOR—Disturbing symptoms from the use of mobile telephones are being increasingly reported and have been described by Hocking.¹ One of us (RAFC) has also collected a series of such cases but has not published them to date.

Many of these cases are characterised by symptoms of dizziness, disorientation, nausea, headache, and transient confusion. Such symptoms might be expected to arise from unilateral stimulation of the vestibular apparatus. This could occur from the direct action of the radiowaves on the endolymph or the hair cells in the semicircular canals or from convection currents set up in the external auditory meatus from the heat of the mobile phone. Most patients complain of a sensation of heating round the ear, often accompanied by reddening of the skin. Blanks *et al*² have shown that there is significant variability in the precise orientation of the semicircular canals, which may result in a predilection to greater thermal stimulation in some people. Because mobile telephones tend to be used in noisy situations, the user holds the instrument much more tightly to the ear than he does a normal phone.

In our opinion there is good theoretical and clinical evidence to support the hypothesis that some people, perhaps 5% to 8% of mobile phone users, have transient symptoms of vestibular disturbance associated with their use. We think that the hypothesis should be tested experimentally as the number of people affected will increase as use of mobile phones increases. It is also important to confirm our hypothesis experimentally to find the mechanism underlying vague symptoms of disorientation and to emphasise that these symptoms do not indicate any greater risk of developing brain cancer, whether or not mobile phones are ultimately shown to have any association with cerebral tumours.

The research required is relatively simple and we would suggest that, in the light of widespread public concern, this work should be included in any programme which is proposed to clarify the issues about safety of mobile telephones.

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1 Hocking B. Symptoms associated with mobile phone use. *Occup Med* 1998;48:357-60.

2 Blanks RHI, Curthoys IS, Markham CH. Planar relationships of the semicircular canals in man. *Acta Otolaryngologica* 1995;80:185-96.

BOOK REVIEWS

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Work-related musculoskeletal disorders: report, workshop summary, and workshop papers. Edited by: STEERING COMMITTEE FOR THE WORKSHOP ON WORK-RELATED MUSCULOSKELETAL INJURIES, AND THE NATIONAL RESEARCH COUNCIL. (Pp 229; £33.95) 1999. Washington, DC: National Academy Press. ISBN 0-309-06397-3.

In August 1998 a 2 day workshop was held under the auspices of the United States National Research Council (NRC) to examine the research base on work related musculoskeletal disorders, and this was later followed by some deliberations of the steering committee. The report of the steering committee and the proceedings and scientific papers from the workshop are presented in this monograph.

The NRC workshop, which was attended by leading scientists from the fields of orthopaedic surgery, occupational medicine, public health, and human factors deliberated over several major topics: the biological responses of muscles, tendons, and nerves to biomechanical stressors; the biomechanics of work stressors; the epidemiology of physical factors; non-biomechanical (psychosocial) factors that might affect the musculoskeletal system; and possible risk mitigating interventions. Under each topic there were commissioned presentations, which are reproduced fully in this monograph, together with some written and oral responses and a considered overview.

The committee's efforts were focused in particular towards answering seven specific questions posed by Congressman Robert Livingston. These concerned the identity, diagnosis, and classification of such disorders, their causes, incidence, and prevention, and the major areas of research uncertainty. (Needless to say, not all of the questions could be answered confidently!)

In reviewing this book, I could not help reflecting on the role of workshop proceedings and who might wish to buy such a summary; also, whether the book represented an important advance on existing major competition—such as the comprehensive critical review by NIOSH, or the detailed *Work-related musculoskeletal disorders: a reference book for prevention*, published by Taylor and Francis. The proceedings of meetings can be a mixed feast, with tasty new morsels, meaty dishes, and stale fare served up together. The best of offerings have the following recipe: one conscientious editor, a peer review process, and a liberal helping of

original research papers, written up as formally and thoroughly as they would be when freely submitted to a journal in open competition. The compilation that occupies the second half of this book does not match this recipe, but does represent a series of interesting reviews and synopses in important areas of research interest.

Of course the scope of the book is broader in seeking to distil and summarise, rather than to break new ground, and in this respect it partially succeeds. But the advance is a fairly small one. Those with an interest in work related musculoskeletal disorders will want to read this book, but perhaps not to possess it. One section which is likely to be of particular interest to them, concerns invited experts' views on the adequacy and limits of the NIOSH review already mentioned, which, paradoxically, represents a more essential addition to the occupational physician's library.

KEITH PALMER

Occupational musculoskeletal disorders, second edition Edited by: NORTIN M HADLER, JOYCE-RACHEL JOHN, MICHELLE LAPLANTE. (Pp 433; \$75.00) 1999. Philadelphia, PA: Lippincott Williams and Wilkins. ISBN 0-7817-1495-8.

The preface to this book indicates that its intended readership includes practising occupational physicians and nurses, specialists in musculoskeletal disease, family practitioners, and members of the health insurance industry. But to some extent its content belies the stated target. This is not a practical primer, nor a scholarly and dispassionate review of the relation between work and musculoskeletal disease. Instead it is a very honest, brave, and personal view of how the author thinks such diseases arise in the main from illness behaviour and illness labelling.

Their basic tenet is that musculoskeletal symptoms are ubiquitous and generally benign, but can become incapacitating as the patient and the physician seek a medical explanation and supply a diagnostic label. They also seek to dispute much received medical wisdom, the evidential basis of which they dispute. Chapter headings such as "the dangers of the diagnostic process", "iatrogenic labelling as in the fibromyalgia paradigm", "the disabled, the disallowed, the disaffected, and the disavowed" and "hand-arm vibration syndrome: a revisionist historiography" reflect these twin viewpoints, which give rise to passages such as: "...Raynaud's phenomenon denotes a personality trait; it's not a disorder", and headings such as "carpal tunnel syndrome is not a cumulative trauma disorder". This eclectic book is striking in the enthusiasm with which it embraces the psychosocial model of musculoskeletal illness and disparages the mechanical-biological model. It is well referenced and informative, with critiques that are both energetic and relentless, but ultimately the authors' stance of unashamed bias colours the whole.

This is a pity. Many of the ideas expressed on causation are compatible with widely held views of illness behaviour (although forcibly expressed). There are also interesting and potentially useful chapters on workers' compensation schemes and coping with arm pain in the workplace.

But lack of balance is not the book's only shortcoming. Given its title, there are also several surprising omissions. For example,